



7/4

SEQUENCE LISTING

<110> Acharya, et al.

<120> Crystal Structure of an Angiotensin-Converting Enzyme (ACE) and Uses Thereof

<130> 30699/41065

<160> 11

<170> PatentIn version 3.3

<210> 1

<211> 701

<212> PRT

<213> Homo sapiens

<400> 1

Ser Gln Gln Val Thr Val Thr His Gly Thr Ser Ser Gln Ala Thr Thr
1 5 10 15

Ser Ser Gln Thr Thr Thr His Gln Ala Thr Ala His Gln Thr Ser Ala
20 25 30

Gln Ser Pro Asn Leu Val Thr Asp Glu Ala Glu Ala Ser Lys Phe Val
35 40 45

Glu Glu Tyr Asp Arg Thr Ser Gln Val Val Trp Asn Glu Tyr Ala Glu
50 55 60

Ala Asn Trp Asn Tyr Asn Thr Asn Ile Thr Thr Glu Thr Ser Lys Ile
65 70 75 80

Leu Leu Gln Lys Asn Met Gln Ile Ala Asn His Thr Leu Lys Tyr Gly
85 90 95

Thr Gln Ala Arg Lys Phe Asp Val Asn Gln Leu Gln Asn Thr Thr Ile
100 105 110

Lys Arg Ile Ile Lys Lys Val Gln Asp Leu Glu Arg Ala Ala Leu Pro
115 120 125

Ala Gln Glu Leu Glu Glu Tyr Asn Lys Ile Leu Leu Asp Met Glu Thr
130 135 140

Thr Tyr Ser Val Ala Thr Val Cys His Pro Asn Gly Ser Cys Leu Gln
145 150 155 160

Leu Glu Pro Asp Leu Thr Asn Val Met Ala Thr Ser Arg Lys Tyr Glu
165 170 175

Asp Leu Leu Trp Ala Trp Glu Gly Trp Arg Asp Lys Ala Gly Arg Ala
180 185 190

Ile Leu Gln Phe Tyr Pro Lys Tyr Val Glu Leu Ile Asn Gln Ala Ala
195 200 205

Arg Leu Asn Gly Tyr Val Asp Ala Gly Asp Ser Trp Arg Ser Met Tyr
210 215 220

Glu Thr Pro Ser Leu Glu Gln Asp Leu Glu Arg Leu Phe Gln Glu Leu
225 230 235 240

Gln Pro Leu Tyr Leu Asn Leu His Ala Tyr Val Arg Arg Ala Leu His
245 250 255

Arg His Tyr Gly Ala Gln His Ile Asn Leu Glu Gly Pro Ile Pro Ala
260 265 270

His Leu Leu Gly Asn Met Trp Ala Gln Thr Trp Ser Asn Ile Tyr Asp
275 280 285

Leu Val Val Pro Phe Pro Ser Ala Pro Ser Met Asp Thr Thr Glu Ala
290 295 300

Met Leu Lys Gln Gly Trp Thr Pro Arg Arg Met Phe Lys Glu Ala Asp
305 310 315 320

Asp Phe Phe Thr Ser Leu Gly Leu Leu Pro Val Pro Pro Glu Phe Trp
325 330 335

Asn Lys Ser Met Leu Glu Lys Pro Thr Asp Gly Arg Glu Val Val Cys
340 345 350

His Ala Ser Ala Trp Asp Phe Tyr Asn Gly Lys Asp Phe Arg Ile Lys
355 360 365

Gln Cys Thr Thr Val Asn Leu Glu Asp Leu Val Val Ala His His Glu
370 375 380

Met Gly His Ile Gln Tyr Phe Met Gln Tyr Lys Asp Leu Pro Val Ala
385 390 395 400

Leu Arg Glu Gly Ala Asn Pro Gly Phe His Glu Ala Ile Gly Asp Val
405 410 415

Leu Ala Leu Ser Val Ser Thr Pro Lys His Leu His Ser Leu Asn Leu
420 425 430

Leu Ser Ser Glu Gly Gly Ser Asp Glu His Asp Ile Asn Phe Leu Met
 435 440 445

Lys Met Ala Leu Asp Lys Ile Ala Phe Ile Pro Phe Ser Tyr Leu Val
 450 455 460

Asp Gln Trp Arg Trp Arg Val Phe Asp Gly Ser Ile Thr Lys Glu Asn
 465 470 475 480

Tyr Asn Gln Glu Trp Trp Ser Leu Arg Leu Lys Tyr Gln Gly Leu Cys
 485 490 495

Pro Pro Val Pro Arg Thr Gln Gly Asp Phe Asp Pro Gly Ala Lys Phe
 500 505 510

His Ile Pro Ser Ser Val Pro Tyr Ile Arg Tyr Phe Val Ser Phe Ile
 515 520 525

Ile Gln Phe Gln Phe His Glu Ala Leu Cys Gln Ala Ala Gly His Thr
 530 535 540

Gly Pro Leu His Lys Cys Asp Ile Tyr Gln Ser Lys Glu Ala Gly Gln
 545 550 555 560

Arg Leu Ala Thr Ala Met Lys Leu Gly Phe Ser Arg Pro Trp Pro Glu
 565 570 575

Ala Met Gln Leu Ile Thr Gly Gln Pro Asn Met Ser Ala Ser Ala Met
 580 585 590

Leu Ser Tyr Phe Lys Pro Leu Leu Asp Trp Leu Arg Thr Glu Asn Glu
 595 600 605

Leu His Gly Glu Lys Leu Gly Trp Pro Gln Tyr Asn Trp Thr Pro Asn
 610 615 620

Ser Ala Arg Ser Glu Gly Pro Leu Pro Asp Ser Gly Arg Val Ser Phe
 625 630 635 640

Leu Gly Leu Asp Leu Asp Ala Gln Gln Ala Arg Val Gly Gln Trp Leu
 645 650 655

Leu Leu Phe Leu Gly Ile Ala Leu Leu Val Ala Thr Leu Gly Leu Ser
 660 665 670

Gln Arg Leu Phe Ser Ile Arg His Arg Ser Leu His Arg His Ser His
 675 680 685

Gly Pro Gln Phe Gly Ser Glu Val Glu Leu Arg His Ser
690 695 700

<210> 2
<211> 589
<212> PRT
<213> Homo sapiens

<400> 2

Leu Val Thr Asp Glu Ala Glu Ala Ser Lys Phe Val Glu Glu Tyr Asp
1 5 10 15

Arg Thr Ser Gln Val Val Trp Asn Glu Tyr Ala Glu Ala Asn Trp Asn
20 25 30

Tyr Asn Thr Asn Ile Thr Thr Glu Thr Ser Lys Ile Leu Leu Gln Lys
35 40 45

Asn Met Gln Ile Ala Asn His Thr Leu Lys Tyr Gly Thr Gln Ala Arg
50 55 60

Lys Phe Asp Val Asn Gln Leu Gln Asn Thr Thr Ile Lys Arg Ile Ile
65 70 75 80

Lys Lys Val Gln Asp Leu Glu Arg Ala Ala Leu Pro Ala Gln Glu Leu
85 90 95

Glu Glu Tyr Asn Lys Ile Leu Leu Asp Met Glu Thr Thr Tyr Ser Val
100 105 110

Ala Thr Val Cys His Pro Asn Gly Ser Cys Leu Gln Leu Glu Pro Asp
115 120 125

Leu Thr Asn Val Met Ala Thr Ser Arg Lys Tyr Glu Asp Leu Leu Trp
130 135 140

Ala Trp Glu Gly Trp Arg Asp Lys Ala Gly Arg Ala Ile Leu Gln Phe
145 150 155 160

Tyr Pro Lys Tyr Val Glu Leu Ile Asn Gln Ala Ala Arg Leu Asn Gly
165 170 175

Tyr Val Asp Ala Gly Asp Ser Trp Arg Ser Met Tyr Glu Thr Pro Ser
180 185 190

Leu Glu Gln Asp Leu Glu Arg Leu Phe Gln Glu Leu Gln Pro Leu Tyr
195 200 205

Leu Asn Leu His Ala Tyr Val Arg Arg Ala Leu His Arg His Tyr Gly
 210 215 220

Ala Gln His Ile Asn Leu Glu Gly Pro Ile Pro Ala His Leu Leu Gly
 225 230 235 240

Asn Met Trp Ala Gln Thr Trp Ser Asn Ile Tyr Asp Leu Val Val Pro
 245 250 255

Phe Pro Ser Ala Pro Ser Met Asp Thr Thr Glu Ala Met Leu Lys Gln
 260 265 270

Gly Trp Thr Pro Arg Arg Met Phe Lys Glu Ala Asp Asp Phe Phe Thr
 275 280 285

Ser Leu Gly Leu Leu Pro Val Pro Pro Glu Phe Trp Asn Lys Ser Met
 290 295 300

Leu Glu Lys Pro Thr Asp Gly Arg Glu Val Val Cys His Ala Ser Ala
 305 310 315 320

Trp Asp Phe Tyr Asn Gly Lys Asp Phe Arg Ile Lys Gln Cys Thr Thr
 325 330 335

Val Asn Leu Glu Asp Leu Val Val Ala His His Glu Met Gly His Ile
 340 345 350

Gln Tyr Phe Met Gln Tyr Lys Asp Leu Pro Val Ala Leu Arg Glu Gly
 355 360 365

Ala Asn Pro Gly Phe His Glu Ala Ile Gly Asp Val Leu Ala Leu Ser
 370 375 380

Val Ser Thr Pro Lys His Leu His Ser Leu Asn Leu Leu Ser Ser Glu
 385 390 395 400

Gly Gly Ser Asp Glu His Asp Ile Asn Phe Leu Met Lys Met Ala Leu
 405 410 415

Asp Lys Ile Ala Phe Ile Pro Phe Ser Tyr Leu Val Asp Gln Trp Arg
 420 425 430

Trp Arg Val Phe Asp Gly Ser Ile Thr Lys Glu Asn Tyr Asn Gln Glu
 435 440 445

Trp Trp Ser Leu Arg Leu Lys Tyr Gln Gly Leu Cys Pro Pro Val Pro
 450 455 460

Arg Thr Gln Gly Asp Phe Asp Pro Gly Ala Lys Phe His Ile Pro Ser
465 470 475 480

Ser Val Pro Tyr Ile Arg Tyr Phe Val Ser Phe Ile Ile Gln Phe Gln
485 490 495

Phe His Glu Ala Leu Cys Gln Ala Ala Gly His Thr Gly Pro Leu His
500 505 510

Lys Cys Asp Ile Tyr Gln Ser Lys Glu Ala Gly Gln Arg Leu Ala Thr
515 520 525

Ala Met Lys Leu Gly Phe Ser Arg Pro Trp Pro Glu Ala Met Gln Leu
530 535 540

Ile Thr Gly Gln Pro Asn Met Ser Ala Ser Ala Met Leu Ser Tyr Phe
545 550 555 560

Lys Pro Leu Leu Asp Trp Leu Arg Thr Glu Asn Glu Leu His Gly Glu
565 570 575

Lys Leu Gly Trp Pro Gln Tyr Asn Trp Thr Pro Asn Ser
580 585

<210> 3
<211> 39
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 3
gaggccaatt ggaactacaa caccagatc accacagag

39

<210> 4
<211> 36
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 4
atgcaaatag cccagcacac ccttaagtac ggcacc

36

<210> 5
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 5
gaagtttgat gttaaccagt tgcagcagac cactatcaag 40

<210> 6
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 6
gtgtgccacc cgcaaggtag ctgcctgcag 30

<210> 7
<211> 36
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 7
ccgtgcctcc tgaattctgg cagaagtcga tgetgg 36

<210> 8
<211> 30
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 8
acggggccagc cccagatgag cgcttcggcc 30

<210> 9
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 9
ctctgtggtg atctgggtgt tgtagttcca attggcctcg 40

<210> 10
<211> 36
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 10
ggtgccgtac ttaagggtgt gctgggctat ttgcat 36

<210> 11
<211> 40
<212> DNA
<213> Artificial sequence

<220>
<223> Synthetic primer

<400> 11
cttgatagtg gtctgctgca actgggtaac atcaaacttc

40